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Applicant(s): **KLAUS PFAFFELHUBER, ET AL.**

Docket No.

MUE-0002-C

Serial No.

10/814,687

Filing Date

03/30/04

Examiner

2837

Group Art Unit

Invention: **SOUND-SHIELDING ELEMENT, USE THEREOF AND METHOD FOR PRODUCING THE SAME**



I hereby certify that this **Letter and Brief Comments re References of IDS filed June 3, 2004**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: KLAUS PFAFFELHUBER, ET AL.)
SERIAL NO.: 10/814,687) Group Art No.:
DATE: March 30, 2004) 2837
FOR: SOUND-SHIELDING ELEMENT, USE) Examiner:
THEREOF AND METHOD FOR)
PRODUCING THE SAME)



LETTER

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Letter is submitted further to the Information Disclosure Statement (IDS) filed on June 03, 2004 in the indicated patent application. To aid in the Examiner's review of the IDS and to expedite prosecution, Applicants provide brief comments appended hereto regarding the various references cited in the IDS.

Entry and consideration hereof, examination on the merits, and allowance of the application are respectfully requested.

The Examiner is invited to contact Applicants' attorneys at the below-listed telephone number concerning this Letter, the IDS, or otherwise regarding the present application.

Please charge any required fees to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

Respectively submitted,

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1. Noise and Vibration Control:

This literature reflects the broad technological background without any indication how the problem of the invention of US serial No. 10/814,687 can be solved in the inventional way.

2. Noise Control Eng. J. 1997:

So called Helmholtz resonators are proposed but the area of perforation holes (open path ratio) is more than 20%. On page 75, right column, first paragraph, it is stated that a general rule for optimum porosity is not available.

3. US patent 4 850 093:

Although the cover sheet covering the honey comb structure comprises holes 5 nothing is mentioned about the thickness of the cover sheet. It seems the holes are necessary to let the air penetrate into the honey comb structure without any additional effect.

4. US patent 5 196 253:

This patent has already been examined and mentioned in the International Preliminary Examination Report of the EPO, according to which it is not a hinderance against the present application. The perforations fill a relatively high area of about 17%.

5. WO 97/27370:

This document preliminarily refers to dampening materials for architectural purposes e.g. by covering ceilings, walls or similar applications. Although noise dampening of machines is mentioned the degree of perforation is more than 10% provided the microslits are manufactured in a special way, namely by partly pressing out of the plane of the sheet.

6. WO 99/24708:

The perforation ratio is also higher than in connection with the invention. Moreover, there are no preferred thicknesses of the perforated tube.

7. WO 99/34974:

This document does not indicate which hole ratio is to be preferred. Perforation per se is well known in the art, for decades, without leading the experts towards the present invention.

8. EP 0 897 175:

This document does not indicate which preferred dimensions for the thickness of the sheet, for the hole diameter and for the hole ratio are successful with regard to sound dampening. In the contrary, according to column 3, line 14, the dimensions are to be

controlled in order to “maintain structural stability” of the sheet 10. The upper limit of 12% and the size and number shall not interfere with such stability. This is another problem to be solved.

9. DE 44 15 983 A1:

The abstract of the German document reads as follows:

“The invention refers to a system for reduction of the noise of the tires of cars on the road which noise is transferred by the air. The housing of the tire at least partially covers the tire and comprises a passive noise absorber.

In case of a relatively stiff covers 6 the diameter of the holes 8 are between 10 and 25 mm, according to claim 12. If the holes are smaller a flexible cover 6 is necessary but nothing is described about the functional principle of the absorption of acoustical waves by “friction” of the air within the holes in order to reach optimum sound absorption.